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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ARIZONA

EVOLUTION NUTRACEUTICALS,
INC. d/b/a CARDIO MIRACLE,
Plaintiff,

vs.

THERMOLIFE INTERNATIONAL,
LLC,
Defendant.

CASE NO.: _____

**COMPLAINT FOR:
DECLARATORY RELIEF,
TRADE LIBEL,
TORTIOUS
INTERFERENCE,
UNLAWFUL PRACTICES,
FALSE OR MISLEADING
REPRESENTATION AND
PRODUCT
DISPARAGEMENT, and
VIOLATION OF THE
PATENT TROLL
PREVENTION ACT**
JURY TRIAL DEMANDED

COMPLAINT

1
2 1. Plaintiff Evolution Nutraceuticals, Inc. d/b/a Cardio Miracle (“Cardio Miracle” or
3 “Plaintiff”), by its undersigned attorneys, for its Complaint against Thermolife
4 International, LLC (“Thermolife” or “Defendant”), alleges as follows:

5 **NATURE AND BASIS OF THE ACTION**

6
7 2. This is an action arising under the Declaratory Judgment Act, 28 U.S.C. § 2201
8 and the patent laws of the United States, Title 35 of the United States Code seeking
9 declaratory judgment of non-infringement and invalidity with respect to U.S. Patent No.
10 8,455,531 (the “’531 Patent” or “Asserted Patent”). A copy of the ’531 Patent is attached
11 hereto as *Exhibit 1*.

12 3. In addition, this is an action for unfair competition, trade libel, defamation,
13 tortious interference, and violation of the Arizona Consumer Fraud Act, Ariz. Rev. Stat.
14 § 44-1521 *et seq.*, False or Misleading Representation and Product Disparagement
15 Pursuant to 15 U.S.C. § 1125, and violation of Arizona Patent Troll Prevention Act, Ariz.
16 Rev. Stat. § 44-1421 *et seq.*, based upon Thermolife’s bad faith and unjustified conduct
17 with respect to Cardio Miracle’s dietary supplements and Amazon.com.

18 4. On or about October 21, 2025, Thermolife, under the name NO3-T, filed one or
19 more complaints with Amazon alleging that certain of Cardio Miracle’s dietary
20 supplemental compositions sold under certain ASINs, namely, B072T51TWY;
21 B0CWW3GD39; B01H6BTRFO (“Accused Supplemental Compositions” or “Accused
22 Products” or “Cardio Miracle Supplements) infringe the ’531 Patent and requesting that
23 Amazon take down Cardio Miracle’s listings for these Accused Supplemental
24 Compositions on Amazon.com (the “Takedown Notices”) without any advanced notice
25 to Cardio Miracle. As a result, Amazon sent corresponding Policy Violation Notices to
26 Cardio Miracle and deactivated (i.e., removed) Cardio Miracle’s listings for these
27 Accused Supplemental Compositions, *See Exhibit 2*.

1 5. Thermolife’s Takedown Notices were in bad faith and unjustified. The ’531 Patent
2 is not infringed because Thermolife failed to conduct any proper testing to confirm that
3 Accused Supplemental Compositions comprise the required effective amount of nitrate
4 and not *de minimis* amounts of nitrate, if any. Thermolife knew and continues to know
5 that the presence of only *de minimis* amounts of nitrate precludes infringement because
6 Thermolife previously admitted to the U.S. Patent & Trademark Office (“USPTO”) that
7 the same quantity of nitrate shown in its tests is “*de minimis*” and does not satisfy the
8 claims.

9 6. There is no possible interpretation or claim construction of claim 62 of the ’531
10 Patent that could result in both infringement and the ’531 Patent being valid.

11 7. As described further below, all claims of the ’531 Patent require a “nitrate salt
12 compound” or “non-ester nitrate compound.” The Accused Supplemental Compositions
13 contain only a *de minimis* amounts of nitrate, if any. Thermolife knows the ’531 Patent
14 could not possibly be infringed by the Accused Supplemental Compositions comprising
15 only a *de minimis* amounts of nitrate, if any. Thermolife has nevertheless attempted, in
16 bad faith, to use the ’531 Patent to damage Cardio Miracle in an effort to remove the
17 Accused Supplemental Compositions from Amazon’s platform as an attempt to extorting
18 Cardio Miracle, and thereby forcing Cardio Miracle to paying Thermolife undeserved
19 “royalty” payments.

20 8. Thermolife has an established reputation as a vexatious litigant and a track record
21 of bad faith litigation. *See, ThermoLife Int’l, LLC v. GNC Corp.*, 922 F.3d 1347, 1355
22 (Fed. Cir. 2019) (ThermoLife brought “frivolous claims,” and its “motivation was
23 seemingly to extract nuisance-value settlements”); *BPI Sports, LLC v. ThermoLife Int’l,*
24 *LLC*, No. 19- 60505-CIV-SMITH, 2021 WL 2946170, at *2 (S.D. Fla. July 14, 2021)
25 (adopting magistrate judge’s report and recommendation and sanctioning ThermoLife
26 where its owner, Ron Kramer, “committed a fraud upon the Court when [he] knowingly
27 fabricated evidence to advance his case and repeatedly attempted to obstruct discovery
28 of that fraud”).

1 9. Thermolife’s goal with respect to Cardio Miracle is clear: to force Cardio Miracle
2 to pay an unjustified “royalty” (i.e., ransom) to Thermolife, or to destroy Cardio
3 Miracle’s business by improperly and unlawfully using Amazon’s takedown process to
4 remove Cardio Miracle’s products from Amazon's website.

5 10. Accordingly, Cardio Miracle has been forced to bring this action to free itself from
6 Thermolife’s unwarranted allegations of patent infringement and to seek relief from
7 Thermolife’s tortious and harmful practices.

8 **THE PARTIES**

9 11. Plaintiff Evolution Nutraceuticals, Inc. d/b/a Cardio Miracle is a Utah corporation
10 having its principal place of business at 8575 South 2940 West, Unit B, West Jordan, UT
11 84088.

12 12. Defendant Thermolife International, LLC is organized in Arizona and has a
13 principal place of business at 1220 E. Hill Street, Signal Hill, California 90755.
14

15 **JURISDICTION AND VENUE**

16 13. This action arises under the Declaratory Judgment Act, 28 U.S.C. § 2201 et seq.,
17 and the laws of the State of Arizona.

18 14. Venue is proper in this jurisdiction pursuant to 28 U.S.C. §§ 1391 and/or 1400.

19 15. This Court has subject matter jurisdiction over the federal law claims in this action
20 under 28 U.S.C. §§ 1331, 1338, 2201, and 2202.

21 16. This Court has supplemental jurisdiction of the state law claims pursuant to 28
22 U.S.C. § 1367(a).

23 17. Personal jurisdiction and venue exist in this Court over Thermolife because
24 Thermolife is and has been incorporated in Arizona since December 31, 2002, with its
25 statutory agent located at 1334 E. Chandler Blvd #5-D76, Phoenix, Arizona 85048.

26 18. The Accused Products have been sold and continue to be sold into this district.
27
28

19. A substantial part of the acts or events giving rise to the claims herein occurred and/or will arise in this judicial district.

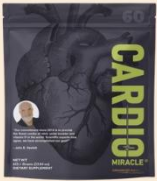
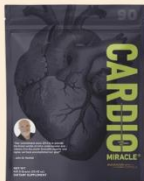

20. Thermolife's actions give rise to a substantial, immediate, real, and justiciable controversy between Cardio Miracle and Thermolife. A judicial declaration is necessary to determine the parties' respective rights.

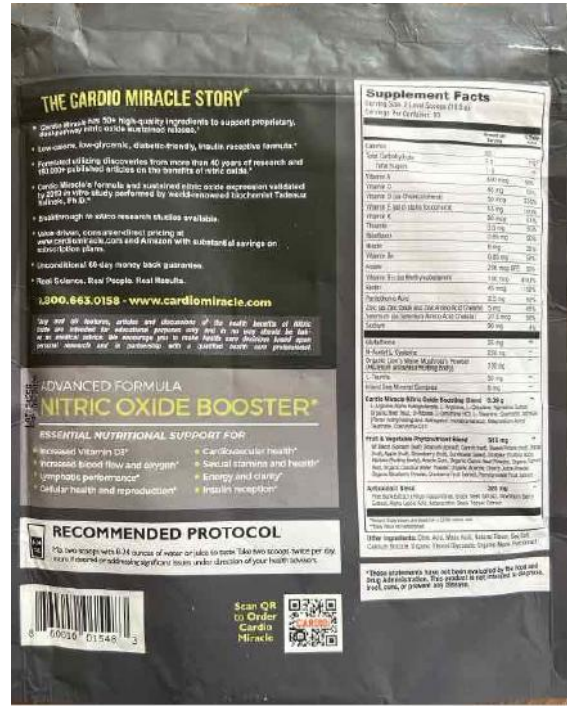
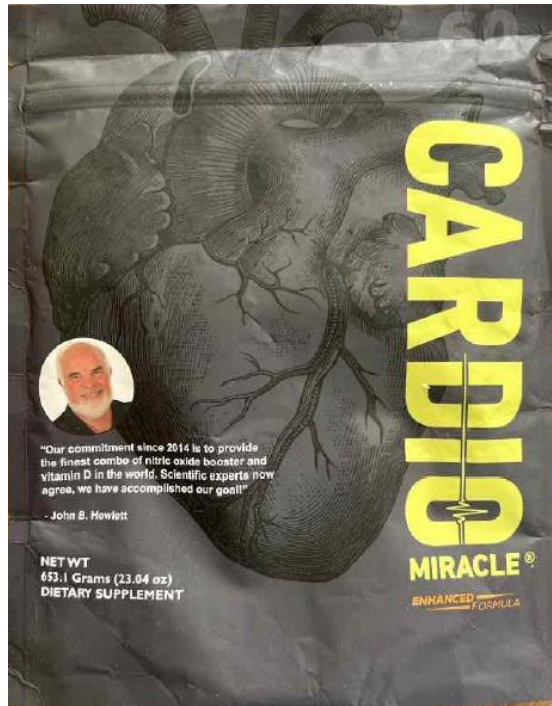
BACKGROUND AND FACTS

21. Cardio Miracle was founded in 2013 by John B. Hewlett, who narrowly survived complications from an emergency appendectomy, including internal bleeding from a nicked vein that thereafter threatened the need for heart bypass surgery, in his quest to discover natural and effective ways of improving his cardiovascular and overall health. Cardio Miracle was created to stimulate and express safe, sustained nitric oxide in the vasculature of the human body. Cardio Miracle is a cutting-edge blend of over 50 ingredients which work together synergistically to promote and sustain the body's natural production of nitric oxide. Since 2013, Cardio Miracle has served many customers.

22. Cardio Miracle sells different sized serving pouches, including subscriptions for repeat customers:

Get your Cardio Miracle

		
60-Serving Pouch	90-Serving Pouch	180-Serving Pouch
60-Serving pouch of Cardio Miracle (30-day supply at recommended dosage of two scoops, twice daily).	90-Serving pouch of Cardio Miracle (45-day supply at recommended dosage of two scoops, twice daily).	180-Serving pouch of Cardio Miracle (90-day supply at recommended dosage of two scoops, twice daily).
View Product Information	View Product Information	View Product Information
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; display: inline-block;"> SUBSCRIBE & SAVE </div> \$93.47 (\$1.56/serving) + Free shipping in the us	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; display: inline-block;"> SUBSCRIBE & SAVE </div> \$127.47 (\$1.42/serving) + Free shipping in the us	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; display: inline-block;"> SUBSCRIBE & SAVE </div> \$229.47 (\$1.27/serving) + Free shipping in the us
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; display: inline-block;"> One-Time </div> \$109.97 (\$1.83/serving)	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; display: inline-block;"> One-Time </div> \$149.97 (\$1.66/serving)	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; display: inline-block;"> One-Time </div> \$269.97 (\$1.50/serving)



(the “Accused Supplemental Compositions” or “Accused Products” or “Cardio Miracle Supplements”).

23. Cardio Miracle sells the Accused Products and other products through a variety of online platforms, including Cardio Miracle’s website, <https://cardiomiracle.com>, or other platforms such as <https://www.amazon.com>. Each year, Cardio Miracle sells a substantial amount of its inventory on Amazon.com. Prior to the Takedown Notices, Amazon.com accounted for approximately 20% of Cardio Miracle’s total sales of the Accused Products.

24. Cardio Miracle has sold the Accused Products on Amazon at least since 2017.

25. Defendant Thermolife does not sell products to consumers, but sells a nitrate-based nitric oxide-boosting ingredient called NO3-T (arginine nitrate). Thermolife holds a patent portfolio, and makes money by forcing companies that market supplement products to purchase non-exclusive sub-licenses from Thermolife. According to publicly available information, Thermolife has been involved in 161 patent cases and has a “win rate” of 0.0%, meaning that it has “lost” or settled every case it has brought. Ex. 3.

1 26. One of the patents owned by Thermolife is the '531 Patent. The '531 Patent relates
2 generally to "amino acid compositions." *Ex. 1*. The claims of the '531 Patent include
3 formulations comprising at least one nitrate salt compound and at least one isolated amino
4 acid compound that is separate from the nitrate salt compound.

5 27. The '531 Patent has been through at least two *ex parte* reexaminations at the
6 USPTO, during each of which the claims of the '531 Patent were significantly amended.
7 The reexamination certificates showing the claims of the current '531 Patent are
8 appended as *Ex. 1*. As an example, Claim 62 of the '531 Patent states:

9 A solid supplement formulation comprising:
10 at least one non-ester nitrate compound; and
11 at least one isolated amino acid compound selected from the group consisting of
12 Agmatine, Beta Alanine, Citrulline, L-Histidine, Norvaline, Ornithine, Aspartic
13 Acid, Cysteine, Glycine, Lysine, Methionine, Praline, Tyrosine, and
Phenylalanine, wherein the at least one isolated amino acid compound is a separate
compound than the at least one non-ester nitrate compound.

14 28. Each and every current claim of the '531 Patent requires a "non-ester nitrate
15 compound" or a "nitrate salt compound."

16 29. On October 21, 2024, Cardio Miracle received notices that Thermolife had filed
17 claims with Amazon, alleging that Cardio Miracle's Cardio Miracle enhanced formula
18 supplement infringed the '531 Patent. *Ex. 2*.

19 30. The notices do not specifically identify which claim or claims of the '531 Patent
20 were allegedly infringed. *Id.*

21 31. On November 1, 2024, Cardio Miracle sent a first non-infringement letter to
22 Amazon demanding the immediate withdrawal of the Takedown and explaining its
23 position of non-infringement. *Ex. 4*. This first non-infringement letter stated "[t]herefore,
24 we request that NO3-T's allegations of infringement be dismissed and that Cardio
25 Miracle's compositions sold under ASINs B072T51TWY, B0CWW3GD39, and
26 B01H6BTRFO be reactivated and authorized for sale on Amazon immediately to prevent
27 any further potential damage and loss of sales to Evolution Nutraceuticals, Inc. DBA
28

1 Cardio Miracle.” Id. To date, neither Amazon nor Thermolife have withdrawn the
2 Takedown.

3 32. On November 20, 2024, Cardio Miracle sent a second non-infringement letter to
4 Amazon demanding the immediate withdrawal of the Takedown and explaining its
5 position of non-infringement. Ex. 5. This second non-infringement letter stated “[g]iven
6 that Cardio Miracle’s compositions comprise only *de minimis* amount of nitrate, if any,
7 while Thermolife has expressly taken the position that nitrates in “*de minimis*” quantities
8 do not satisfy the nitrate limitations of the claims of the ’531 Patent, Thermolife’s (NO3-
9 T’s) allegations of infringement are baseless and without merit. This second non-
10 infringement letter further stated “[t]herefore, we request that NO3-T’s allegations of
11 infringement be dismissed and that Cardio Miracle’s compositions sold under ASINs
12 B072T51TWY, B0CWW3GD39, and B01H6BTRFO be reactivated and authorized for sale on
13 Amazon immediately to prevent any further potential damage and loss of sales to Evolution
14 Nutraceuticals, Inc. DBA Cardio Miracle.” Id. To date, neither Amazon nor Thermolife have
15 withdrawn the Takedown.

16 33. As part of its Amazon takedown, Ex. 2, Thermolife never provided any report or
17 proof showing that Thermolife has exercised any due diligence to measure the presence
18 of more than *de minimis amounts of nitrate* in Cardio Miracle’s Supplemental Compositions.

19 34. Test results of Cardio Miracle Supplements reveal the presence of only *de minimis*
20 *amounts of nitrate* in Cardio Miracle’s Supplemental Compositions, i.e. 3.95 mg in a 10.00 g
21 serving size, Ex. 6.

22 35. As explained further below, Thermolife has expressly taken the position that
23 nitrates in such quantities are “*de minimis*” and do not satisfy the nitrate limitations of
24 the claims of the ’531 Patent. As a result, Cardio Miracle’s testing results unambiguously
25 establish that the Accused Products do not infringe the ’531 Patent.

26 36. In 2019, Thermolife filed a request for *ex parte* reexamination of the ’531 Patent
27 at the U.S. PTO.
28

1 37. Thermolife's request for reexamination was based on several prior art references
 2 that raised substantial new questions of patentability, including: Harris, International
 3 Publication WO 2005/115175 ("Harris") and Yoshimura, U.S. Patent No. 5,576,351
 4 ("Yoshimura"). Ex. 6 (Request for Reexamination).

5 38. As part of the reexamination request, Thermolife also included arguments as to
 6 why it believed the claims of the '531 Patent were patentable in view of both Harris and
 7 Yoshimura. Ex. 6.

8 39. Harris discloses snack bars containing an amino acid (creatine) and thiamine
 9 mononitrate. Ex. 6 at 9. Even though Harris discloses a product with an amino acid and
 10 a nitrate, Thermolife took the position that the quantity of nitrates in Harris was too small
 11 to satisfy the "nitrate salt or non-ester nitrate" claim limitations.

12 40. Specifically, Thermolife argued that Harris does not "provide a supplementary
 13 amount of at least one nitrate salt compound and at least one isolated Creatine compound
 14 as required in claims 1, 7, 62, and 68." Ex. 6 at 7-8.

15 41. Thermolife stated that Harris discloses only 0.02 mg nitrate and this amount was
 16 too small to satisfy the "nitrate salt" or "non-ester nitrate" limitations:

17 As indicated in Example 3 of Harris, the *amount of nitrate* provided in the snack
 18 bar containing creatine is *far too low* to reasonably interpret the disclosed snack
 19 bar as a supplement *composition comprising a nitrate salt or non-ester nitrate*.
 20 The recommended dietary allowance (RDA) of thiamin is 1.2 mg/day for men and
 21 1.1 mg/day for women (see Exhibit R). Accordingly, a vitamin mix providing
 22 10% of the RDA as specified in Example 3 of Harris would comprise about 0.1
 23 mg thiamin. Because 0.1 mg thiamin is about 0.13 μ mol thiamin, the
 24 corresponding weight of nitrate provided as a result of providing thiamin as
 25 thiamin mononitrate is about 0.02 mg nitrate, which is well below the limits
 26 established by the FDA for foodstuff. The amount of nitrate ingested from eating
 27 of the snack bars described in Harris² is so small that it is actually less than the
 28 amount of nitrate that could be ingested from drinking a cup of water, as the
 National Primary Drinking Water Regulations allows up to 10 mg nitrate to be
 found in one liter of drinking water. Thus, in view of the federal regulations in
 2005 regarding the RDA, and the established teachings in the prior art concerning
 a supplement formulation comprising a nitrate salt and an amino acid compound,
 the *de minimis amount of nitrate disclosed in Harris cannot be reasonably*

1 *interpreted to teach a supplement formulation comprising a nitrate salt or non-*
 2 *ester nitrate.*

3 *Ex. 6 at 9* (emphasis added).

4 42. Thermolife also stated that if the Harris product included the amount of thiamine
 5 mononitrate permitted by FDA regulations, it would provide 0.22 mg of nitrate, which
 6 Thermolife contended was still “de minimis” and “far too low” to satisfy the nitrate
 7 limitations of the ’531 Patent:

8 The amount of nitrate ingested from ingesting thiamine mononitrate in an amount
 9 that provides the maximum RDA of thiamine is about **0.22 mg. This amount is**
 10 **still far too low to result in nitrate supplementation.** As noted above, even the
 11 amount of nitrate provided in the maximum RDA dose of thiamine mononitrate
 12 (which is 10 times more than the dose of nitrate disclosed in Harris) is still less
 13 than the amount of nitrate ingested from drinking water. Thus, even the broadest
 14 reasonable interpretation of the compositions described in Harris still only allow
 15 **a de minimis amount** of a nitrate and does not encompass compositions for
 16 supplementation of nitrates

17 *Ex. 6 at 10* (emphasis added).

18 43. Thermolife stated that “Because Harris does not describe a composition that
 19 provides a supplementary amount of nitrate, the reference does not anticipate claims 1,
 20 7, 62, and 68.” *Id.*

21 44. Thermolife also argued that Yoshimura did not contain a nitrate salt because
 22 Yoshimura did not provide a “supplementary amount” of nitrate:

23 **The amount of nitrate in the compositions described in Yoshimura also is not a**
 24 **supplementary amount.** The source of nitrate in Yoshimura's composition comes
 25 from the thiamine mononitrate in the vitamin premix (see Table 6a of Yoshimura).
 26 The weight percentage of thiamine mononitrate in the vitamin premix is about
 27 0.02%, and in the final composition of Yoshimura, the total weight of the vitamin
 28 premix is 2.8 g, which is 0.53 mg of thiamine mononitrate. 0.53 mg of thiamine
 mononitrate is about half of the RDA of thiamine mononitrate, which supports the
 interpretation that the other "nutrients" in Yoshimura's compositions (the ones
 that are not arginine or ornithine or a functional analog of arginine or ornithine)
 are each not a supplementary amount. Also, the amount of nitrate provided from
 this 0.53 mg of thiamine mononitrate is about **0.1 mg. This is a de minimis**
amount of nitrate. As noted above, the National Primary Drinking Water
 Regulations allows up to 10 mg nitrate to be found in one liter of drinking water,
 so the amount of nitrate provided from the amount of thiamine mononitrate

described by Yoshimura is as much as 100 times less than the amount of nitrate that would be ingested from drinking one liter of drinking water.

Ex. 6 at 30.

45. Thermolife has admitted that the terms “nitrate salt” and “non-ester nitrate compound” do not encompass *de minimis* amounts of nitrates.

46. Thermolife has admitted that at least 10 mg or more of nitrate is required to satisfy the nitrate limitations of the claims of the ’531 Patent.

47. Thermolife has admitted that the claims of the ’531 Patent each require nitrates in a “supplementary amount.”

48. Thermolife asserted that a “supplementary amount” of nitrate must be at least “greater than the amount of nitrate ingested from drinking water,” while also asserting that EPA regulations allow “up to 10 mg nitrate” in a liter of drinking water *Ex. 6 at 12* (with respect to Harris) and 37 (with respect to Yoshimura).

49. Thermolife’s expert declaration (relied upon by Thermolife in the reexamination) asserted that nitrate supplementation requires amounts “over” 20-30 mg:

The average total consumption of nitrate from daily meals in the USA is around **76 mg per day** (Harsha and Nathan, "Dietary sources of nitrite as a modulator of I/R injury", *Kidney International*, 2009, 75:1140-1144, attached as Exhibit I). Accordingly, we and other nitrate researchers expected that any effect of nitrate administration, pharmacological or otherwise, such as vasodilation and increase in athletic performance, would require amounts of nitrate that are **over** what one would ingest from a typical meal, which would be around **20-30 mg** of nitrate per meal.

Ex. 7 (Lundberg Declaration) at Paragraph 6 (emphasis added). See also *Ex. 8* (Thermolife January 31, 2020 response to office action relying on Lundberg Declaration).

50. Thermolife has therefore admitted that a “supplementary amount” of nitrate would be more than 20-30 mg.

51. The doctrine of prosecution disclaimer precludes any claim construction of “nitrate salt compound” or a “non-ester nitrate compound” that encompasses trace or *de minimis* quantities of nitrates.

1 52. Patent claims must be construed the same way for both invalidity and
2 infringement. Accordingly, if *de minimis* quantities of nitrates do not satisfy the nitrate
3 limitations with respect to validity, *de minimis* quantities do not satisfy the nitrate
4 limitations for purposes of infringement.

5 53. Based on Thermolife's own unequivocal admissions to the U.S. PTO, nitrates in
6 the range of 20-22 ppm do not result in infringement of the '531 Patent.

7 54. Thermolife submitted that Takedown Notices with full knowledge that it has failed
8 to exercise any required due diligence to conduct any testing of the Accused Products to
9 show the presence of more than *de minimis amounts of nitrate* in the Accused Products and
10 that the Accused Products satisfied the nitrate limitations of the '531 Patent.

11 55. Accordingly, Thermolife's allegations of infringement were objectively baseless
12 and in bad faith.

13 56. There is no reasonable interpretation of the '531 Patent under which *de minimis*
14 or trace quantities of nitrates (in the range of 3.95 mg in 10.00 g) could result in
15 infringement and, at the same time, the '531 Patent could be valid.

16 57. To the extent the "non-ester nitrate compound" and "nitrate salt compound"
17 limitations are satisfied by trace amounts of nitrates of *de minimis* or trace quantities of
18 nitrates, the prior art clearly discloses dietary supplements containing the claimed amino
19 acids in combination with vegetables, thiamine mononitrate, or other plant-based
20 ingredients that would necessarily contain the same (or greater) quantity of nitrates.

21 58. To the extent the claims of the '531 Patent contain no limitation on quantity of
22 nitrate, the patent is also invalid under 35 U.S.C. 101. If the claims of the '531 Patent
23 contain no limitation on quantity of nitrate, and therefore encompass quantities of nitrates
24 that have no effect when consumed, the claimed compositions do not possess markedly
25 different characteristics than amino acids found in nature. The act of "isolating" amino
26 acids and claiming them as part of a supplement is insufficient to confer patent eligibility.

1 59. Nitrates (NO_3^-) are naturally-occurring compounds that are a metabolic product
2 of microbial digestion of wastes containing nitrogen, for example, animal feces or
3 nitrogen-based fertilizers.

4 60. Nitrates are present in many plants, fruits, and vegetables.

5 61. Vegetables such as spinach, kale, and lettuce are known to be particularly high in
6 nitrates.

7 62. Any dietary supplement containing vegetables such as broccoli, spinach, kale,
8 lettuce, beet root, ginkgo, garlic, ginseng will necessarily, and naturally, contains some
9 amount of nitrates.

10 63. Any dietary supplement containing thiamine mononitrate necessarily contains
11 some amount of nitrates.

12 64. Any dietary supplement containing spirulina necessarily contains some amount of
13 nitrates.

14 65. Any dietary supplement containing milk thistle necessarily contains some amount
15 of nitrates.

16 66. Any dietary supplement containing rosemary necessarily contains some amount
17 of nitrates.

18 67. Dietary supplements containing both amino acids and nitrate-containing
19 ingredients (such as thiamin mononitrate, vegetables, spirulina, milk thistle, and
20 rosemary) were known prior to the earliest possible priority date of the '531 Patent.

21 68. If claims of the '531 Patent have no quantity limitation whatsoever with respect
22 to nitrates, such claims are anticipated by prior art supplements that did contain amino
23 acids and nitrate-containing ingredients.

24 69. As a company focused entirely on dietary supplements containing amino acids,
25 Thermolife certainly knew that supplements including amino acids and nitrate-
26 containing vegetables were disclosed long before the earliest possible priority date of the
27 '531 Patent.

28 70. Thermolife has long known that vegetables contain some quantity of nitrates.

1 71. During the 2019 reexamination of the '531 Patent, Thermolife submitted the
2 declaration of Dr. Lundberg in support of its request for reexamination. Ex. 8.

3 72. Dr. Lundberg's declaration cited (and attached) an article that explained:

4 Nitrate is a naturally occurring form of nitrogen and is an integral part of
5 the nitrogen cycle in the environment. Nitrate is formed from fertilizers, decaying
6 plants, manure and other organic residues. It is found in the air, soil, water and
7 food (*particularly in vegetables*) and is produced naturally within the human body.
8 1- 4 It is also used as a food additive, mainly as a preservative and antimicrobial
9 agent. It is used in foods such as cheese and cheese products, raw and processed
10 meats, edible casings, processed fish, fish products, spirits and liqueurs.

11

12 Vegetables constitute *the major dietary source of nitrate*, generally providing
13 from 300 to 940 mg g-1 of the daily dietary intake (Tables 1 and 2).

14 Ex. 7 (Lundberg Declaration at Exhibit D) (emphasis added).

15 73. Thus, prior to submitting the Takedown Notices, Thermolife knew that the claims
16 of the '531 Patent are invalid if they are broad enough to read on a supplement merely
17 containing amino acids and trace nitrate present from vegetables.

18 74. As a result, Thermolife could have no reasonable belief that the '531 Patent is both
19 valid and infringed by the Accused Products. Thermolife's Takedown Notices were
20 therefore in bad faith and objectively baseless.

21 75. Following the Takedown Notices, Cardio Miracle had each of the Accused
22 Products tested for nitrates by SUMMIT NUTRITIONAL LABRATORIES ("SNL").
23 SNL is a research laboratory accredited by Perry Johnson Laboratory Accreditation, INC
24 ("PLJA"). PLJ specializes in accreditation of Testing and Calibration Laboratories.
25 Summit Nutritional Laboratories is a professional analytical laboratory service which
26 performs chemical and microbiological testing on nutraceuticals and dietary
27 supplements.

28 76. SNL's Certificate of Analysis for the Accused Products showed that the level of
nitrates in the Accused Products were so significantly below 20-30 mg of nitrate per
serving and substantially below 10 mg of nitrate per. Ex. 9.

1 77. SNL's tests show there is only *de minimis* or trace quantities of nitrates in the
2 Accused Products.

3 78. Cardio Miracle has and will continue to suffer reputational harm as a result of the
4 Takedown Notices. Before the Takedown Notices, Cardio Miracle had created and
5 maintained a high ranking for the Accused Products on the Amazon platform, which
6 utilizes a complex algorithm to determine where products appear in search results. The
7 key factors that influence the valuable Amazon product rankings include sales velocity,
8 conversion rate, stock availability and click-through rate (amongst other factors). These
9 performance factors and sales history on the Accused Products have been severely
10 negatively affected due to the Takedown Notices, which has and will continue to reduce
11 the ranking values.

12 79. Cardio Miracle has expended considerable costs in marketing and product
13 development to cultivate valuable consumer following, goodwill, and recognition, along
14 with a high Amazon performing rankings.

15 80. Online market share and rankings on Amazon.com can take months to gain and
16 are based upon algorithms that take into account consecutive sales and sales velocity.
17 Products are thus ranked higher, or near the top of the search, for products with ongoing
18 and positive sales. Cardio Miracle has invested significant resources, time, and money
19 into improving and maintaining its Amazon ranking in order to be highly placed in
20 Amazon's ranking system for the Accused Products.

21 81. As a result of the Takedown Notices and the deactivated listings for the Accused
22 Products, there is now a significant and growing time period of no sales for the Accused
23 Products on Amazon. This has a negative effect on the rankings of the Accused Products.
24 If and when Cardio Miracle's listings are reactivated, it will once again have to spend
25 significant time and money to recapture its high ranking in order to once again be
26 competitive in the supplement market, and it may never be able to fully restore its ranking
27 and goodwill. If Thermolife's deactivations are allowed to persist, this reputational and
28 business harm will not be able to be recouped.

1 82. In addition, Cardio Miracle has allocated significant resources to the creation and
2 growth of a subscription-based sales program through their Amazon channel for the
3 Accused Products. This subscription model allows customers to automatically purchase
4 and receive the Accused Products on a regular interval (primarily monthly cycles). As a
5 result of the Takedown Notices and the deactivation of listings for the Accused Products,
6 customers have not had their subscriptions filled.

7 83. These subscription agreements will be terminated because Cardio Miracle is
8 prevented from supplying the subscribed-to products. Subscription-based customers are
9 incentivized by Amazon to try alternative products when subscribed products are
10 unavailable.

11 84. As a result, Thermolife's Takedown Notices have caused Cardio Miracle to lose
12 extremely valuable subscriber customers for the Accused Products and the associated
13 sales of Accused Products to these customers.

14 85. On information and belief, the actual purpose of Thermolife submitting the
15 Takedown Notices was to unfairly remove Cardio Miracle's listings from Amazon in
16 order to unfairly extract unjustified royalty payments from Cardio Miracle.

17 86. As of the filing of this Complaint, Thermolife has not withdrawn its Takedown
18 Notices or recanted its allegation that the Accused Products infringe the Asserted Patent.

19 87. Cardio Miracle's continued use, selling, marketing, and sales of the Accused
20 Products therefore raise a present case and controversy.

21 **COUNT 1**

22 **Declaratory Judgment of Non- Infringement of the '531 Patent**

23 88. Cardio Miracle incorporates and re-alleges paragraphs 1 through 87 as if fully set
24 forth herein.

25 89. Thermolife is the owner of the '531 Patent.

26 90. By submitting the Takedown Notices, Thermolife has taken the position that
27 Cardio Miracle infringes at least one claim of the '531 Patent.
28

1 91. Cardio Miracle has not infringed and does not infringe any claim of the '531
2 Patent, either directly or indirectly, contributorily or by inducement, literally or under the
3 doctrine of equivalents, or in any manner whatsoever.

4 92. For example, and without limitation, Cardio Miracle's Supplements, alone or in
5 combination, do not infringe the '531 Patent directly or indirectly, contributorily or by
6 inducement, literally or under the doctrine of equivalents, or in any manner whatsoever,
7 at least because the Accused Products do not satisfy all of the limitations of any of '531
8 Patent.

9 93. An actual controversy exists between Cardio Miracle and Thermolife as to Cardio
10 Miracle's non-infringement of the '531 Patent as evidenced by Thermolife's engagement
11 of Amazon takedown process and allegation of infringement of claim 62.

12 94. A judicial decision is necessary and appropriate so that Cardio Miracle may
13 ascertain its rights with respect to the '531 Patent.

14 95. Cardio Miracle seeks, and is entitled to, a declaration from this Court that Cardio
15 Miracle has not infringed and does not infringe any claim of the '531 Patent, either
16 directly or indirectly, contributorily or by inducement, literally or under the doctrine of
17 equivalents, or in any manner whatsoever.

18 **COUNT II**

19 **Declaratory Judgement of Invalidity of the '531 Patent**

20 96. Cardio Miracle incorporates and re-alleges the allegations of paragraphs 1 through
21 95 as if fully set forth herein.

22 97. The '531 Patent is invalid under at least 35 U.S.C. §§ 101, 102, 103, and 112.

23 98. For example, each and every claim limitation of the '531 Patent is anticipated
24 and/or obvious under §§ 102 and 103 because the prior art discloses and/or renders
25 obvious to one of ordinary skill in the art the limitations of the claims of the '531 Patent.

26 99. In addition, to the extent Thermolife's proposed infringement interpretation of the
27 '531 Patent is accepted, it means the nitrate requirement of the claims of the '531 Patent
28 can be satisfied by trace amounts of nitrates in the range of less than 10 mg per 10 g of

1 serving. If the '531 Patent is broad enough to be infringed by trace quantities of nitrates
 2 in the range of less than 10 mg per 10 g of serving, then the '531 Patent is invalid as
 3 anticipated or obvious in view of prior art supplements that disclose the claimed amino
 4 acids in combination with vegetables or other products that contain non-zero quantities
 5 of nitrates.

6 100. A lack of limitation on quantity of nitrates also means that the claims of the
 7 '531 Patent are invalid under 35 U.S.C. § 101 because they are directed to naturally-
 8 occurring products that do not possess markedly different characteristics from what is
 9 found in nature.

10 101. An actionable and justiciable controversy exists between the parties
 11 regarding the validity of the '531 Patent.

12 102. A judicial declaration is necessary to determine the parties' respective
 13 rights regarding the '531 Patent.

14 103. Cardio Miracle is entitled to a judgment declaring that the claims of the
 15 '531 Patent are invalid under 35 U.S.C. §§ 101, 102, 103, and/or 112.

16 COUNT III

17 **Unlawful Practices Under Arizona Consumer Fraud Act, Ariz. Rev. Stat. § 44-** 18 **1521 et seq.**

19 104. Cardio Miracle incorporates and re-alleges the allegations of paragraphs 1
 20 through 103 as if fully set forth herein.

21 105. Thermolife's conduct amounts to unlawful practices under A.R.S. Section
 22 44-1521 *et. seq.*, of the Arizona Consumer Fraud Act, which considers any deceptive or
 23 unfair act or practice, fraud, false pretense, misrepresentation or omission of any material
 24 fact, to be unlawful practice.

25 106. Thermolife engaged in unfair competition by initiating the Amazon
 26 takedown process with respect to Cardio Miracle's product while knowingly failing to
 27 conduct the required testing to demonstrate Cardio Miracle's products infringe '531
 28 Patent, and knowing the same.

1 nitrates at the level found in the Accused Products, did not satisfy the nitrate limitations
2 for purposes of alleged infringement.

3 115. Thermolife's Takedown Notices referred to Cardio Miracle and its
4 products and clearly derogated those products by stating that the products infringe and
5 should be delisted from Amazon, when those products, in fact, do not infringe.

6 116. Thermolife, knew or reasonably should have known that its Takedown
7 Notices would result in Amazon delisting Cardio Miracle's products and not doing
8 business with Cardio Miracle with respect to the Accused Products. In fact, causing
9 Amazon to cease doing business with Cardio Miracle with respect to the Accused
10 Products was the entire reason that Thermolife sent the Takedown Notices.

11 117. Thermolife's false claims in the Takedown Notices played a material and
12 substantial part in inducing Amazon to cease doing business with Cardio Miracle with
13 respect to the Accused Products, In fact, it was the entire cause of Amazon's actions.

14 118. As a result of Thermolife's falsehood, Cardio Miracle has suffered special
15 damages in the form of lost sales and profits. Specifically, Cardio Miracle has lost
16 approximately \$1,000,000.00 in sales of the Accused Products that would have been
17 made on Amazon.com but for Thermolife's false statement.

18 119. Prior to Thermolife's false statements, Cardio Miracle's sales of the
19 Accused Products on Amazon in 2024 were approximately \$2,200,000.00 through
20 October (i.e., January through October 2024), which amounts to approximately
21 \$220,000.00 per month and \$7,300.00 per day. After Thermolife's false statements
22 induced Amazon to remove the Accused Products, these sales have been entirely lost.
23 Using just this past-performance data, which does not take into account increasing sales
24 trends, Cardio Miracle has lost approximately \$1,000,000.00 in sales as a result of
25 Thermolife's Takedown Notices. This number also does not account for the damage to
26 Cardio Miracle's Amazon rankings and lost subscribers.

27 120. When Amazon provided the Policy Violation Notices that led to the listing
28 deactivations, it also provided Amazon's estimate of the annualized "At-risk" sales

1 amount for each Accused product. The At-risk sales amount is the amount of sales
2 Amazon believes will be lost as a result of the alleged policy violations and deactivations.
3 Amazon's At-risk amount estimates are based on the sales data and trends available to
4 Amazon. The total At-risk sales amount for the Accused Product was \$1,945,336.00,
5 which amounts to approximately \$162,111.00 per month, \$37,410.00 per week, and
6 \$5,329.00 per day. Using Amazon's own estimates, Cardio Miracle has lost
7 approximately \$1,000,000.00 in sales as a result of Thermolife's Takedown Notices. This
8 number also does not account for the damage to Cardio Miracle's Amazon rankings and
9 lost subscribers.

10 121. Thermolife's false statements have also directly affected Cardio Miracle's
11 Subscribe and Save ("SnS") subscriber base. The Accused Products had at least 2,314
12 active subscribers prior to Thermolife's Takedown Notices. Cardio Miracle generated
13 average monthly revenue from these subscribers of approximately \$65,000.00, which
14 was a stable and predictable revenue stream. Due to the Accused Products' unavailability,
15 subscribers have been unable to receive their regular shipments, resulting in canceled
16 subscriptions. The loss of valuable subscribers has and will deprive Cardio Miracle of
17 repeat customers that provide reliable revenue, contribute to Amazon rankings, and are
18 likely to generate additional customer recognition and goodwill by word of mouth as
19 long-term users of the Accused Products. Based conservatively on the year-to-date
20 revenue from the SnS subscribers of the Accused Products, Cardio Miracle estimates
21 losses of \$1,200,000.00 per year based on lost SnS subscribers.

22 122. As set forth above, Thermolife's false statements have disparaged Cardio
23 Miracle's reputation.

24 123. As set forth above, Thermolife's false statements were made with
25 knowledge of its falsity or, at the very least, reckless disregard for the truth, such that
26 Thermolife acted with actual malice.

27 124. Based on the foregoing, Thermolife is liable for trade libel, also known as
28 commercial disparagement, under Arizona Law.

COUNT V

False or Misleading Representation and Product

Disparagement Pursuant to 15 U.S.C. § 1125

125. Cardio Miracle incorporates and re-alleges the allegations of paragraphs 1 through 124 as if fully set forth herein.

126. This is a claim for false or misleading representation of fact, unfair competition, and product disparagement under 15 U.S.C. § 1125(a).

127. Cardio Miracle has a commercial interest in its commercial and business reputation.

128. Cardio Miracle has established a business reputation as a popular and trusted seller of health and/or fitness supplements on Amazon's online marketplace.

129. Thermolife knowingly made false, misleading, disparaging and defamatory statements in commerce through the Takedown Notices to Amazon relating to Cardio Miracle's Supplements. These statements actually deceived Amazon and are likely to deceive and confuse the public (i.e., Amazon's marketplace users) into believing that Cardio Miracle's products violate patent rights (or may violate patent rights when used by customers), thereby materially affecting their decision and ability to purchase Cardio Miracle's products.

130. Thermolife's Takedown Notices were designed to advance its business interests by removing Cardio Miracle's listings from the Amazon marketplace, which delisting would force Cardio Miracle out of business if it refused to pay an unjustified royalty to Thermolife.

131. Thermolife made the above-referenced false and disparaging statements in commercial promotion of Thermolife's only asset (patent rights) in order to unfairly compete with Cardio Miracle.

132. Thermolife's false and misleading representations were sufficiently disseminated to actual and prospective customers by way of the Takedown Notices so as to constitute advertising.

1 133. Thermolife’s false and misleading representation of Cardio Miracle’s
2 alleged infringement have misled, confused and deceived customers and prospective
3 customers as to Cardio Miracle’s reputation. Further, these misrepresentations have the
4 capacity to continue misleading, confusing, and deceiving Cardio Miracle’s customers
5 and prospective customers.

6 134. The false and misleading representations had a material effect on Cardio
7 Miracle’s customers’ and prospective customers’ decisions to do business with Cardio
8 Miracle because, as a direct result of Thermolife’s Notices, Amazon has replaced
9 customer visibility of products offered by Cardio Miracle with those offered by third-
10 party sellers with higher performance ranks.

11 135. Thermolife made these false and misleading representations in interstate
12 commerce and these false and misleading representations affect interstate commerce.

13 136. On information and belief, Thermolife lacked a basis for alleging
14 infringement by the Accused Products in the Takedown Notices submitted to Amazon,
15 and Thermolife acted with the intent that the Accused Listings be removed from Amazon,
16 preventing consumers from purchasing Cardio Miracle’s products in an effort to damage
17 Cardio Miracle and extract unwarranted “royalty” payments.

18 137. Cardio Miracle’s injuries fall within the zone of interest protected by the
19 Lanham Act because Thermolife’s false advertising and disparaging misrepresentations
20 have caused Cardio Miracle to suffer a loss of goodwill, a loss of sales, and damage to
21 its commercial and business reputation.

22 138. Thermolife’s wrongful acts as alleged in this Complaint constitute false or
23 misleading representations of fact, unfair competition and product disparagement under
24 15 U.S.C. § 1125(a).

25 139. The damage to Cardio Miracle’s economic and reputational injuries were
26 directly caused by Thermolife’s false and misleading representations.

27 140. As a direct and proximate result of Thermolife’s actions, constituting false
28 or misleading representation of fact, unfair competition and product disparagement,

1 Cardio Miracle has been damaged and is entitled to monetary relief in an amount to be
2 determined at trial.

3 141. In addition, as a direct and proximate result of Thermolife's actions, Cardio
4 Miracle has suffered and continues to suffer great and irreparable injury, for which Cardio
5 Miracle has no adequate remedy at law, including loss of goodwill and Amazon seller
6 ranking.

7 142. Thermolife will continue its actions, constituting false or misleading
8 representation of fact, unfair competition, and product disparagement, unless enjoined by
9 this Court.

10 **COUNT VI**

11 **Tortious Interference with Prospective Economic Advantage**

12 143. Cardio Miracle incorporates and re-alleges the allegations of paragraphs 1
13 through 142as if fully set forth herein.

14 144. A business relationship exists between Cardio Miracle and Amazon and
15 Cardio Miracle had reasonable expectation that this relationship would continue in full,
16 including with respect to the Accused Products.

17 145. ThermoLife had actual knowledge of the business relationship between
18 Cardio Miracle and Amazon, which is demonstrated by Thermolife's submission to
19 Amazon of the Takedown Notices.

20 146. Thermolife submitted the Takedown Notices without having a sufficient
21 basis for alleging infringement and despite having knowledge that the Accused Products
22 did not infringe any claims of the '531 Patent and that the '531 Patent is invalid.
23 Thermolife intended for Amazon to remove the listing for the Accused Products and thus
24 Thermolife's Takedown Notices were an unjustified and an intentional interference with
25 Cardio Miracle's relationship with Amazon.

26 147. Cardio Miracle has been damaged by Thermolife's interference because
27 Amazon removed the listing for the Accused Products and Cardio Miracle has lost
28 significant sales each day since the listings were removed. In addition, Cardio Miracle's

1 Amazon seller ranking has been damaged, and Cardio Miracle's valuable brand,
 2 reputation, and goodwill has been, and will continue to be irreparably damaged by the
 3 listing removals and unavailability of the Accused Products on Amazon.

4 148. Cardio Miracle has been forced to expend significant amounts of time,
 5 effort, and money on legal fees to defend against Thermolife's unjustified conduct.

6 149. Cardio Miracle is entitled to damages for Thermolife's tortious conduct.

8 **COUNT VII**

9 **Bad Faith Patent Infringement**

10 **Under the Arizona Patent Troll Prevention Act, Ariz. Rev. Stat. § 44-1421 et seq.**

11 150. Cardio Miracle incorporates and re-alleges the allegations of paragraphs 1
 12 through 149 as if fully set forth herein.

13 151. Thermolife's Takedown Notices, including its assertions of patent
 14 infringement, were in bad faith and unjustified, and contained false, misleading and/or
 15 deceptive information.

16 152. Prior to filing several complaints with Amazon, Thermolife did not conduct
 17 any analysis or third-party testing demonstrating the '531 Patent was infringed.

18 153. Thermolife has sought to leverage the '531 Patent to demand "royalty"
 19 payments from Cardio Miracle through a license agreement. Despite Cardio Miracle's
 20 request to Amazon for reconsideration to reinstate the listings of the Accused Products,
 21 Thermolife has failed to provide any evidence demonstrating that the Accused Product
 22 meets the limitations of the '531 Patent.

23 154. Thermolife was fully aware and/or should have known that its patent
 24 infringement claims lacked merit. A simple testing of the Accused Products would clearly
 25 reveal that the product contains, at most, only a *de minimis* amounts of nitrates, if any.
 26 Furthermore, Thermolife has previously asserted to the U.S. Patent and Trademark Office
 27 that nitrate levels as minimal as those found in the Accused Product are "de minimis" and
 28 do not meet the nitrate limitations outlined in the claims of the '531 Patent.

155. Thermolife has developed a reputation for abusing the Amazon takedown process by filing baseless patent infringement claims against companies selling supplement products. This tactic pressures these companies into signing licensing agreements, enabling Thermolife to collect royalties under dubious circumstances.

JURY DEMAND

156. Cardio Miracle demands a trial by jury as to all claims and all issues properly triable thereby.

REQUEST FOR RELIEF

WHEREFORE, Cardio Miracle respectfully requests the Court enter judgment in its favor and against Thermolife as follows:

- A. Declaring the Asserted Patent is invalid and unenforceable;
- B. Declaring that Cardio Miracle and its products have not and do not infringe the Asserted Patent;
- C. Permanently enjoining Thermolife and its managers, members, officers, directors, employees, agents, licensees, representatives, affiliates, related companies, servants, successors and assigns, and any and all persons acting in privity or concert with any of them, from further acts of wrongful assertion of the Asserted Patent, including against Cardio Miracle;
- D. Ordering Thermolife to affirmatively withdraw all Amazon takedown requests it has submitted to Amazon with respect to the Accused Products and take all other necessary steps to allow Cardio Miracle to sell the Accused Products through Amazon.
- E. Finding that Thermolife has violated California Business & Professions Code, § 17200, and awarding all damages and remedies available thereunder;
- F. Finding that Thermolife has engaged in business disparagement in violation of the common law of California;
- G. Finding that Thermolife has made a false or misleading representation and product disparagement in violation of 15 U.S.C. § 1125;
- H. Finding that Thermolife has intentionally interfered with Cardio Miracle's prospective economic advantage;

- 1 I. An award of pre-judgment and post-judgment interest and costs of this action
2 against Thermolife;
3 J. Awarding damages, attorneys' fees, and costs to the fullest extent provided for by
4 United States statute and the common law of Arizona, including exemplary and
5 punitive damages; and
6 K. Granting any such other and further relief that the Court deems just and proper.

7 Dated 2/11/2025

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